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Misplaced Priorities: How County Health Departments Overlook the Leading Causes of Death

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Misplaced Priorities: How County Health Departments Overlook the Leading Causes of Death





HELLO!

I am Jeremy Whitaker
and you can contact me
at jwhit@uni.edu



OUR
JOURNEY
IS EASY

INTRODUCTION



LITERATURE REVIEW



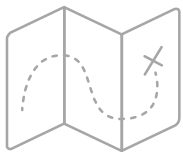
METHODOLOGY



RESULTS/DISCUSSION



CONCLUSIONS



1.

Introduction





LEADING CAUSES OF **DEATH**

1900

1. **Influenza**
2. **Tuberculosis**
3. **Diarrheal diseases**
4. Heart disease
5. Stroke
6. Nephritis
7. Accidents
8. Cancer
9. Senility
10. **Diphtheria**

2014

1. Heart disease
2. Cancer
3. Lower respiratory diseases
4. Unintentional injuries
5. Stroke
6. Alzheimer's disease
7. Diabetes
8. **Influenza and pneumonia**
9. Nephritis
10. Suicide



WHAT COUNTY HEALTH DEPARTMENTS ARE **REQUIRED TO DO**

GAPS IN HEALTH CARE

Provide services not available in the community, such as home health care.

Coordinate with Animal Control

For diseases that impact both humans and animals, such as rabies and West Nile virus.

IMMUNIZATIONS

Required by law to provide vaccinations to children if they are not otherwise available.

Lead Abatement

Test and report exposure in children

Inspections

Restaurants, pools, tanning beds



Health departments must continue to handle traditional public health priorities as well as emerging infectious diseases. But it is even more urgent that they adjust to the epidemiological transition from communicable to chronic disease.

All too many are asleep at the switch.

Dr. Thomas Frieden
2004



RESEARCH QUESTION

Are county health departments in Iowa using their resources to **prevent the leading causes of death** in the United States?



2.

Literature Review





PREVIOUS RESEARCH

1997 Iowa Study

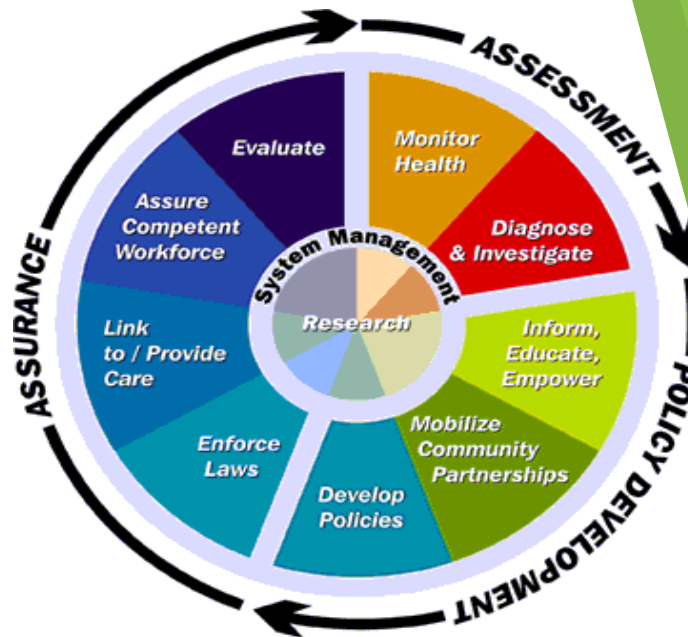
Focused on 10 essential services

Positive Responses

- ▶ Meet regulatory standards: 83.9%
- ▶ Health services: 75.5%
- ▶ Ensure environmental health: 72.6%

Negative Responses

- ▶ Prevention and screening services: 45.3%
- ▶ Evaluated public health services effect on community health: 38.3%
- ▶ Surveyed for behavioral risk factors: 35.1%





PREVIOUS RESEARCH

2013 NACCHO Data – Top 10 Services at LHDs

1. Adult immunization
2. Childhood immunization,
3. Communicable/infectious disease surveillance
4. Tuberculosis screening
5. Tuberculosis treatment
6. Environmental health surveillance
7. Food service establishment regulation\
8. Food safety education
9. Nutrition education
10. School/daycare regulation



FEDERAL FUNDING SOURCES FOR IOWA

CDC

\$40.1 million annually

- ▶ Infectious Disease: \$21.8 m
- ▶ Chronic Disease: \$7.4 m
- ▶ Environmental/
Occupational Health: \$7.0 m
- ▶ Other: \$3.9 m

SAMHSA

\$28.3 million annually

- ▶ Substance Abuse Prevention
and Treatment: \$19.5
- ▶ Mental Health: \$8.8 m

HRSA

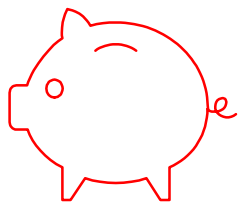
\$25.7 million annually

- ▶ HIV Drugs and Prevention:
\$10.5 m
- ▶ Maternal/Child Health: \$13 m
- ▶ Rural Health: \$1.5 m
- ▶ Health Workforce: \$.8 m

Dept. of Agriculture

\$46 million annually

- ▶ Women, Infants, and
Children (WIC)



**\$10.5
MILLION
FOR AIDS**

**\$7.8
MILLION
FOR TOP 3
CHRONIC
DISEASES**

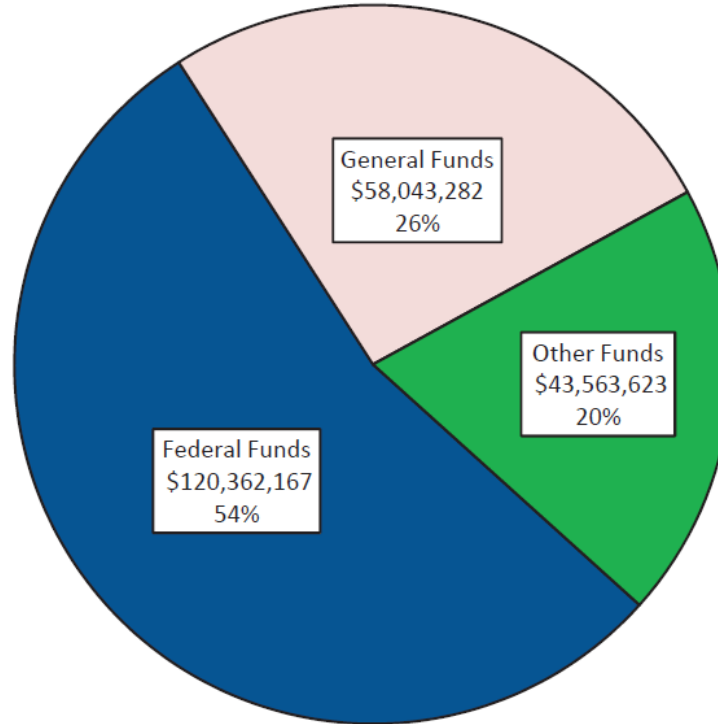
The top 3 chronic diseases killed 44,224 Iowans in 2014.
Last year AIDS killed 20.

\$ IDPH BUDGET

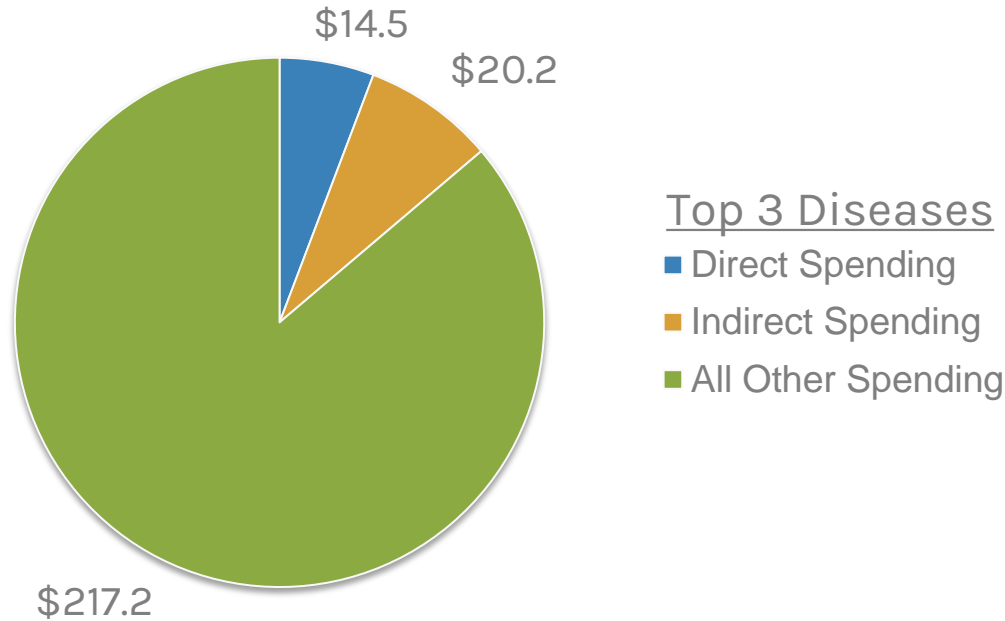
Federal Funds
\$120.3 million

State General Fund
\$58 million

**Fees, MOUs, Non-Federal
Grants**
\$43.5 million



IOWA DEPARTMENT OF PUBLIC HEALTH CHRONIC DISEASE **SPENDING**



Direct spending on the three leading causes of death is 5.3% of the IDPH budget.



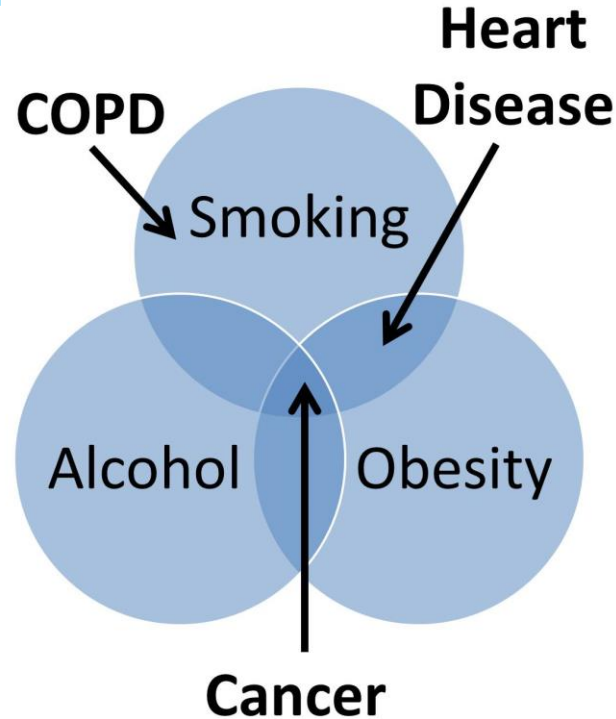
CAUSES OF DEATH

Major Causes of Death

Heart disease, cancer, and lower respiratory diseases have many causes.

Risk Factors

Smoking, obesity, and excessive alcohol use are the leading causes of heart disease, cancer, and lower respiratory diseases.





ROLE OF THE **HEALTH DEPARTMENT**

2012: For the Public's Health: Investing in a Healthier Future

Foundational Capabilities

1. Information systems and resources, including surveillance and epidemiology;
2. Health planning (including community health improvement planning);
3. Partnership development and community mobilization;
4. Policy development, analysis, and decision support;
5. Communication (including health literacy and cultural competence);
6. Public health research, evaluation, and quality improvement

Basic Services

1. Maternal and child health promotion;
2. Injury control;
3. Communicable disease control;
4. Chronic disease prevention (including tobacco control);
5. Environmental health; and
6. Mental health and substance abuse



3.

Methodology



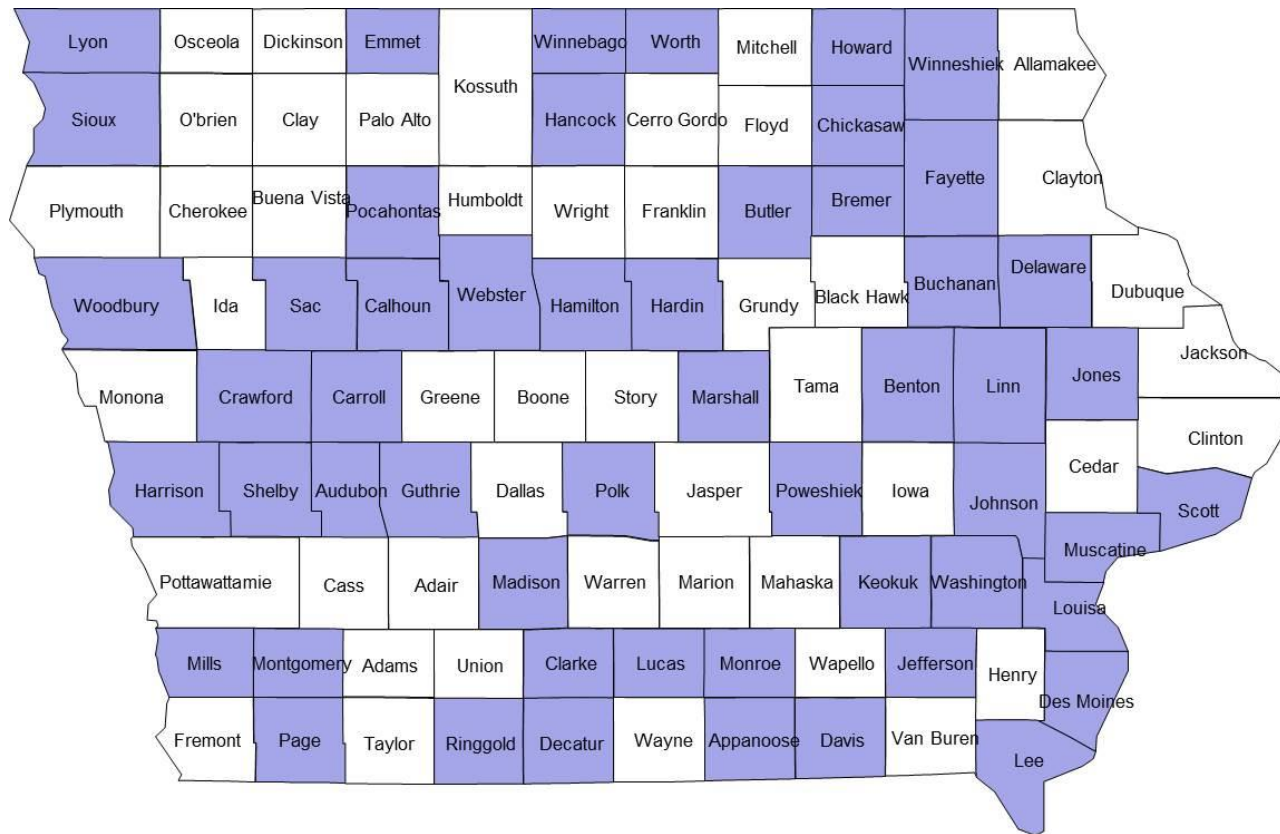


DATA SOURCE

2014 Iowa Governmental Public Health System Survey

127 question survey sent to all 99 county health
departments in November 2014 by IDPH

Counties in the Survey





PROBLEMS WITH **METHODOLOGY**

Survey

- ▶ No questions on alcohol, only substance abuse
- ▶ Most questions are binary



ASSUMPTIONS, LIMITATIONS, AND **DELIMITATIONS**

Assumptions

Counties more engaged in accreditation may be more likely to fill out the survey

Limitations

Participants self-selected for all three instruments, leading to potential bias

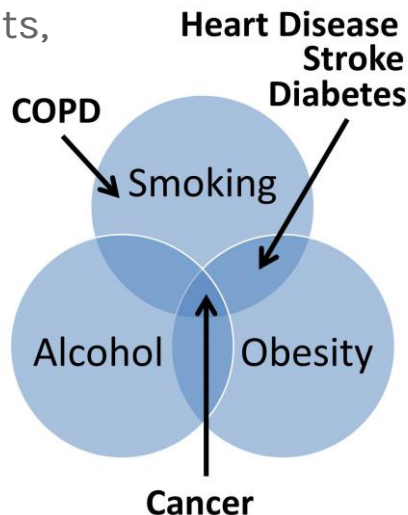
Delimitations

Only primary prevention is studied

Only mortality, not morbidity

Not all chronic diseases are included

- ▶ Stroke
- ▶ Diabetes
- ▶ Alzheimer's
- ▶ Nephritis





4.

Results and Discussion





ARE COUNTIES PREVENTING THE LEADING CAUSES OF **DEATH**?

Survey Data

- ▶ Chronic Disease: 43.2%
- ▶ Nutrition: 43.2%
- ▶ Tobacco: 41.51%
- ▶ Physical Activity: 26.42%

What about some good news?

**Question 112: Percentage of counties
participating in a coalition for select chronic
disease or an associated risk factor (n=53)**

Cancer	28.31%
Cardiovascular disease	33.96%
Nutrition	58.49%
Physical Activity	64.15%
Tobacco	69.81%

Tobacco coalitions are funded in 94 of the 99 counties.
About 25% of LHDs didn't bother to show up.



WHAT ARE THE BARRIERS?

Lack of Evidence-Based Practice

Limited spending is not being done according to best practices established by research.

Does the department use evidence-based practice for:	Rural (n=12)	Micropolitan (n=36)	Metropolitan (n=5)	State Percent (n=53)
Cancer	16.67%	13.89%	40%	16.98%
Cardiovascular disease	25%	47.22%	40%	41.51%
Nutrition	25%	38.89%	60%	37.74%
Physical Activity	41.67%	47.22%	60%	47.17%
Tobacco	16.67%	52.78%	80%	47.17%



WHAT ARE THE BARRIERS?

Education

Larger health departments are more likely to have an administrator with more education.

Question 27: Educational attainment of the public health administrator, by size (n=53)

Degree	Rural (n=12)	Micropolitan (n=36)	Metropolitan (n=5)	Statewide (n=53)
Less than bachelors	41.67%	19.44%	0	22.64%
Unrelated bachelors	0	5.56%	0	3.78%
Health bachelors	41.67%	39.89%	0	35.84%
Health masters	16.67%	36.11%	100%	37.73%



5.

Conclusions





A FEW CONCLUSIONS

- ▶ Health departments do not have the funding to do more than what they are required
- ▶ No mandate to address chronic disease
- ▶ Leadership and funding from the top is lacking
- ▶ Lack of staffing and training

FUTURE RESEARCH

- ▶ Missing: Evidence-based practice
- ▶ Interest in regionalization and impact on local economy
- ▶ Why isn't there more state and federal money for chronic disease
- ▶ Impacts of ACA repeal

**THANK
YOU!**



References

1. Centers for Disease Control and Prevention. (2015a). Deaths, percent of deaths, and death rates for the 15 leading causes of death: United States and each state, 2014. Retrieved from <http://www.cdc.gov/nchs/nvss/mortality/lcwk9.htm>
2. Iowa Administrative Code. (2016). Chapter 641.80: Local public health services. Retrieved from <https://www.legis.iowa.gov/docs/iac/chapter/02-15-2017.641.80.pdf>
3. Iowa Department of Public Health. (2012). Local Boards of Health Guidebook. Retrieved from <http://idph.iowa.gov/Portals/1/Files/LPHS/LPH%20Guidebook%202014%20complete%20pdf.pdf>
4. Frieden, T. R. (2004). Asleep at the Switch: Local Public Health and Chronic Disease. *American Journal of Public Health*, 94(12), 2059–2061.
5. Rohrer, J. E., Dominguez, D., Weaver, M., Atchison, C. G., & Merchant, J. A. (1997). Assessing public health performance in Iowa's counties. *Journal of Public Health Management and Practice*, 3(3), 10-15.

References

6. Centers for Disease Control and Prevention. (2014b). The public health system and the 10 essential public health functions. Office for State, Tribal, Local, and Territorial Support. Retrieved from <http://www.cdc.gov/nphpsp/essentialservices.html>
7. Shah, G. H., Luo, H., & Sotnikov, S. (2014). Public health services most commonly provided by local health departments in the United States. *Frontiers in Public Health Services and Systems Research Public Health Services*, 3(1). <https://doi.org/10.13023/FPHSSR.0301.02>
8. Centers for Disease Control and Prevention. (2015b). Fiscal Year 2015 Grants Summary Profile Report for Iowa. https://wwwn.cdc.gov/fundingprofiles/Report_Docs/PDFDocs/Rpt2015/Iowa-2015-CDC-Grants-Profile-Report.pdf.
9. Health Resources and Services Administration. (2016). Grants for Iowa: Fiscal Year 2016. Retrieved from <https://datawarehouse.hrsa.gov/Tools/DataByGeographyResults.aspx?geoTyp=State&geoCd=19>.

References

10. Substance Abuse and Mental Health Services Administration. (2016). State Summaries FY2015/2016. Retrieved from <http://www.samhsa.gov/grants-awards-by-state/iowa>
11. Iowa Department of Public Health. (2016a). 2015 Annual Report and Budget Summary. Retrieved from <https://idph.iowa.gov/Portals/1/userfiles/91/Annual%20Reports/2015%20IDPH%20Annual%20Report%20FINAL.pdf>
12. Celli, B. R., MacNee, W., Agusti, A., Anzueto, A., Berg, B., Buist, A. S., ... & Fein, A. (2004). Standards for the diagnosis and treatment of patients with COPD: a summary of the ATS/ERS position paper. *European Respiratory Journal*, 23(6), 932-946.
13. Centers for Disease Control and Prevention . (2016c). About heart disease. Retrieved from <http://www.cdc.gov/heartdisease/about.htm>
14. Fryar, C. D., Chen, T., & Li, X. (2012). Prevalence of uncontrolled risk factors for cardiovascular disease: United States, 1999–2010. *NCHS Data Brief*, 103, 1-8.
15. Greenberg, J. A. (2013), Obesity and early mortality in the United States. *Obesity*, 21, 405–412. doi:10.1002/oby.20023
16. Jia, H., & Lubetkin, E. I. (2010). Trends in quality-adjusted life-years lost contributed by smoking and obesity. *American Journal of Preventive Medicine*, 38(2), 138-144.

References

17. Mokdad, A. H., Marks, J. S., Stroup, D. F., & Gerberding, J. L. (2004). Actual Causes of Death in the United States, 2000. *Journal of the American Medical Association*, 291(10), 1238–1245. <https://doi.org/10.1001/jama.291.10.1238>
18. Nelson, D. E., Jarman, D. W., Rehm, J., Greenfield, T. K., Rey, G., Kerr, W. C., ... Naimi, T. S. (2013). Alcohol-Attributable Cancer Deaths and Years of Potential Life Lost in the United States. *American Journal of Public Health*, 103(4), 641–648. <http://doi.org/10.2105/AJPH.2012.301199>
19. Ogden, C. L., Carroll, M. D., Fryar, C. D., & Flegal, K. M. (2015). Prevalence of obesity among adults and youth: United States, 2011–2014. *NCHS data brief*, 219(219), 1-8.
20. Polednak, A. P. (2008). Estimating the number of US incident cancers attributable to obesity and the impact on temporal trends in incidence rates for obesity-related cancers. *Cancer Detection and Prevention*, 32(3), 190-199.
21. Popkin, B. M., Kim, S., Rusev, E. R., Du, S., & Zizza, C. (2006). Measuring the full economic costs of diet, physical activity and obesity-related chronic diseases. *Obesity Reviews*, 7(3), 271-293.
22. United States Department of Health and Human Services. (2014). The health consequences of smoking—50 years of progress: a report of the Surgeon General. Atlanta, GA: US Department of Health and Human Services, Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, Office on Smoking and Health.

References

23. Institute of Medicine. (2012). For the Public's Health: Investing in a Healthier Future. Committee on Public Health Strategies to Improve Health. National Academies Press. New York, NY.